

REMARKS

This paper responds to the Office Action mailed on August 26, 2004. Independent claims 1, 8, 22, 28 and 33 have been amended. Claims 2 and 3 have been amended to correct the antecedent basis as a result of the changes to claim 1. Claims 1-37 remain pending in this patent application. Reconsideration of the claims and this patent application, and removal of all rejections is respectfully solicited.

Objection to the Abstract

The Abstract was objected to as containing the phrase "or the like is disclosed and claimed". The objectionable language has been removed.

§102 Rejection of the Claims

Claims 1-12, 15, 16, 18, 19, and 22-37 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ashkenazi (U.S. 5,327,369). Applicant has amended independent claims 1, 8, 22, 28 and 33 of this application and believes that the anticipation rejections under 35 U.S.C. § 102(b) are not valid. Applicant respectfully requests reconsideration of the claims and removal of the rejections for independent and dependent claims 1-12, 15, 16, 18, 19, and 22-37.

Applicant has studied the Ashkenazi patent and believes it is distinguishable from the present claims in several areas. For example, but not by way of limitation, the structure of the adder of the Ashkenazi patent is very much different from the claimed structure and methods of the claims as described more fully below.

In Applicant's claim 1, the limitations of a first, a second and a final stage carry signals are not found in the Ashkenazi patent. The second carry signal of claim 1 comes from an intermediate carry-merge stage, and this signal is part of a decision process in the summing generator stage to make conditional decisions. The first circuit, second circuit and sum generator all operate on a parallel basis as shown in Applicant's patent application in Figure 5 which improves the speed of operation.

In contrast to claim 1, the Ashkenazi patent does not use the carry signals of any intermediate stages. Although the Ashkenazi patent does mention parallel operation of some stages, there is not parallel operation in all sections of the adder.

Claim 8 includes similar limitations as described for claim 1 above, and further includes the limitations of using two selection circuits where the first selection circuit makes an intermediate decision on the carry condition and a second decision is made in the selection of the sum. Thus selection of carry signals and final sums is made in claim 8. The intermediate selection of carry signals used in the carry signal stream is not found in the Ashkenazi patent.

Claim 22 includes similar limitations as described above for claims 1 and 8, and further includes the limitations of the adder used as part of a computing system.

Independent method claim 28 also contains limitations not found in the Ashkenazi patent. Claim 28 describes the acts of generating a first, a second and a final stage carry signals which are not found in the Ashkenazi patent. The second carry signal of claim 28 comes from a series of intermediate carry-merge stages, and this intermediate carry signal is part of a selection or decision point that determines which carry signals shall propagate to later carry stages. Thus, there are two decision locations claimed in this process. These limitations, as well as others not discussed here, are not found in the Ashkenazi patent.

Independent method claim 28 also contains limitations not found in the Ashkenazi patent. Claim 28 describes the acts of generating a first, a second and a final stage carry signals which are not found in the Ashkenazi patent. The second carry signal of claim 28 comes from a series of intermediate carry-merge stages, and generating this intermediate carry signal is part of a selection or decision point that determines which carry signals shall propagate to later carry stages. Thus, there are two selecting acts claimed in this process. These limitations, as well as other limitations not discussed here, are not found in the Ashkenazi patent.

Since all of the limitations of the claims are not found in the single publication by Ashkenazi, all of the requirements for an anticipation rejection under 35 U.S.C. § 102(b) are not met. Applicant respectfully requests reconsideration of all independent and dependent claims and allowance of all claims.

Allowable Subject Matter

Claims 13, 14, 17, and 20 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant acknowledges the indication of allowability of claims 13, 14, 17, and 20, Applicant respectfully defers the decision to make these claims independent since Applicant believes the claims upon which these claims depend are also allowable.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 349-9592) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date Feb. 28, 2005

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 28 day of February 28, 2005.

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